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NEWS 9 SEP 25 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 10 SEP 25 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
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NEWS 13 OCT 19 E-mail format enhanced
NEWS 14 OCT 23 Option to turn off MARPAT highlighting enhancements available
NEWS 15 OCT 23 CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS 16 OCT 23 The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded
NEWS 17 OCT 30 CHEMLIST enhanced with new search and display field
NEWS 18 NOV 03 JAPIO enhanced with IPC 8 features and functionality
NEWS 19 NOV 10 CA/CAplus F-Term thesaurus enhanced
NEWS 20 NOV 10 STN Express with Discover! free maintenance release Version 8.01c now available
NEWS 21 NOV 20 CAS Registry Number crossover limit increased to 300,000 in additional databases
NEWS 22 NOV 20 CA/CAplus to MARPAT accession number crossover limit increased to 50,000
NEWS 23 DEC 01 CAS REGISTRY updated with new ambiguity codes
NEWS 24 DEC 11 CAS REGISTRY chemical nomenclature enhanced
NEWS 25 DEC 14 WPIDS/WPINDEX/WPIX manual codes updated
NEWS 26 DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and functionality
NEWS 27 DEC 18 CA/CAplus pre-1967 chemical substance index entries enhanced with preparation role
NEWS 28 DEC 18 CA/CAplus patent kind codes updated
NEWS 29 DEC 18 MARPAT to CA/CAplus accession number crossover limit increased to 50,000
NEWS 30 DEC 18 MEDLINE updated in preparation for 2007 reload

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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microscopy)
IT Imaging
(fluorescent; new tool for membrane potential monitoring by FRET
voltage sensitive dye using spectral and fluorescence lifetime imaging
microscopy)
IT Photoexcitation
(***multiphoton*** ; new tool for membrane potential monitoring by
FRET voltage sensitive dye using spectral and fluorescence lifetime
imaging microscopy)
IT Biosensors
Carcinoma
Cell membrane
Diagnosis
Fluorescence resonance energy transfer
Fluorescent dyes
Spectroscopy
(new tool for membrane potential monitoring by FRET voltage sensitive
dye using spectral and fluorescence lifetime imaging microscopy)
IT Phospholipids, analysis
RL: ARU (Analytical role, unclassified); BUU (Biological use,
unclassified); ANST (Analytical study); BIOL (Biological study); USES
(Uses)
(new tool for membrane potential monitoring by FRET voltage sensitive
dye using spectral and fluorescence lifetime imaging microscopy)
IT Fluorescence microscopy
(time-resolved; new tool for membrane potential monitoring by FRET
voltage sensitive dye using spectral and fluorescence lifetime imaging
microscopy)
IT 70363-83-6, Bis-(1,3-dibutylbarbituric acid)trimethine ***oxonol***
176181-90-1, Tritc-dhpe
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST
(Analytical study); BIOL (Biological study); USES (Uses)
(new tool for membrane potential monitoring by FRET voltage sensitive
dye using spectral and fluorescence lifetime imaging microscopy)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bechem, M; *Electrochimica Acta* 2003, V48, P3387 CAPLUS
- (2) Caciato, T; *Neuron* 1999, V23, P449 CAPLUS
- (3) Dumas, D; *Biorheology* 2003, V40, P253 MEDLINE
- (4) Dumas, D; *Biorheology* 2004, V41, P459 CAPLUS
- (5) D'all'Asta, V; *Experimental Cell Research* 1997, V231, P260 CAPLUS
- (6) Epps, D; *Chemistry and Physics of Lipids* 1994, V69(2), P137 CAPLUS
- (7) Gonzalez, J; *Chem Biol* 1997, V4, P269 CAPLUS
- (8) Holoubek, A; *Biochimica et Biophysica Acta* 2006, V1609, P71
- (9) Klonis, N; *Analytical Biochemistry* 2003, V317, P47 CAPLUS
- (10) Milward-Sadler, S; *Osteoarthritis and Cartilage* 2000, V8, P272
- (11) Miyawaki, A; *Current Opinion in Neurobiology* 2003, V13, P591 CAPLUS
- (12) Sanchez, J; *Comparative Biochemistry and Physiology Part A* 2003, V135, P575 MEDLINE
- (13) Sholam, D; *Neuron* 1999, V24, P791

L3 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:632427 CAPLUS <<LOGINID::20061218>>

DN 143:162740

ED Entered STN: 21 Jul 2005

TI High-efficiency nonresonant ***two*** - ***photon*** -absorbing
organic materials and their applications

IN Akiba, Masaharu; Tani, Takeharu; Morinaga, Naoki; Takizawa, Hiroo

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 69 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G02F001-361

ICS C08K005-00; C08L101-00; C09K011-06; G11B007-24; C09B023-00

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related
Properties)

Section cross-reference(s): 27, 38, 74

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------|------|----------|-----------------|----------|
| ----- | --- | ----- | ----- | ----- |
| PI JP 2005195922 | A | 20050721 | JP 2004-2743 | 20040108 |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|---|
| JP 2005195922 | ICM | G02F001-361 |
| | ICS | C08K005-00; C08L101-00; C09K011-06; G11B007-24;
C09B023-00 |
| | IPCI | G02F0001-361 [ICM, 7]; G02F0001-35 [ICM, 7, C*];
C08K0005-00 [ICS, 7]; C08L0101-00 [ICS, 7]; C09K0011-06
[ICS, 7]; G11B0007-24 [ICS, 7]; C09B0023-00 [ICS, 7] |
| | IPCR | C08K0005-00 [I, A]; C08K0005-00 [I, C*]; C08L0101-00
[I, A]; C08L0101-00 [I, C*]; C09B0023-00 [N, A];
C09B0023-00 [N, C*]; C09K0011-06 [I, A]; C09K0011-06
[I, C*]; G02F0001-35 [I, C*]; G02F0001-361 [I, A];
G11B0007-24 [I, A]; G11B0007-24 [I, C*] |
| | FTERM | 2K002/AB12; 2K002/BA01; 2K002/CA05; 2K002/HA13;
4H056/CA02; 4H056/CA04; 4H056/CA05; 4H056/CB01;
4H056/CB06; 4H056/CC02; 4H056/CC08; 4H056/CD05;
4H056/CD08; 4H056/CE02; 4H056/CE03; 4H056/CE06;
4H056/CE07; 4H056/DD03; 4H056/DD07; 4H056/DD19;
4H056/DD22; 4H056/DD29; 4H056/FA06; 4H056/FA10;
4J002/BC031; 4J002/BC091; 4J002/BG011; 4J002/BG041;
4J002/BG051; 4J002/BG061; 4J002/BG071; 4J002/BG131;
4J002/BH021; 4J002/ET006; 4J002/EU116; 4J002/EU226;
4J002/EV326; 4J002/FD096; 5D029/JA04 |

OS MARPAT 143:162740

AB The materials contain TPAD1L(TPAD2)_n (I; TPAD1, TPAD2 = group contg. nonresonant ***two*** - ***photon*** -absorbing chromophore; L = linkage, single bond, atom; n = 1-7). Preferably, the TPAD1 and TPAD2 are cyanine dyes, streptocyanine dyes, merocyanine dyes, ***oxonol*** dyes, stilbazolium dye, or groups contg. X₂(CR₄:CR₃)mC:Y(CR₁:CR₂)nX₁ [R₁-R₄ = H, substituent: Y = O, at. group contg. CN, COMe, SO₂, etc.; X₁, X₂ = aryl, heterocycl, 5- or 6-membered azacyclic group (structure given); m, n = 0-4; m = n .noteq. 0]. The materials are useful for luminescent materials, polymerizable compns., optical recording materials, and image forming materials, which are irradiated with laser at wavelength longer than linear absorption band of I in actual use.

ST nonresonant ***two*** ***photon*** absorbing org material luminescence; optical recording nonresonant ***two*** ***photon*** absorbing org material; polymn nonresonant ***two*** ***photon*** absorbing org material; laser imaging nonresonant ***two*** ***photon*** absorbing org material

IT Luminescent substances

Nonlinear optical materials

Optical recording materials

Two - ***photon*** absorption
(high-efficiency nonresonant ***two*** - ***photon*** -absorbing org. materials for luminescent materials, polymerizable compns., optical recording materials, and image forming materials)

IT Luminescence

(laser-induced; high-efficiency nonresonant ***two*** - ***photon*** -absorbing org. materials for luminescent materials, polymerizable compns., optical recording materials, and image forming materials)

IT Imaging

Optical recording

(laser; high-efficiency nonresonant ***two*** - ***photon*** -absorbing org. materials for luminescent materials, polymerizable compns., optical recording materials, and image forming materials)

IT Polymerization

(radiochem., laser-induced; high-efficiency nonresonant ***two*** - ***photon*** -absorbing org. materials for luminescent materials, polymerizable compns., optical recording materials, and image forming materials)

IT 718636-51-2P 859500-47-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(high-efficiency nonresonant ***two*** - ***photon*** -absorbing org. materials for luminescent materials, polymerizable compns., optical recording materials, and image forming materials)

IT 859500-49-5P 859500-50-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)
 (high-efficiency nonresonant ***two*** - ***photon*** -absorbing
 org. materials for luminescent materials, polymerizable compns.,
 optical recording materials, and image forming materials)

IT 120-92-3D, Cyclopentanone, cyclopentanone 123-31-9, Hydroquinone,
 reactions 694-83-7, 1,2-Cyclohexanediamine 681836-46-4 859500-48-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (high-efficiency nonresonant ***two*** - ***photon*** -absorbing
 org. materials for luminescent materials, polymerizable compns.,
 optical recording materials, and image forming materials)

IT 859500-51-9 859500-52-0
 RL: TEM (Technical or engineered material use); USES (Uses)
 (high-efficiency nonresonant ***two*** - ***photon*** -absorbing
 org. materials for luminescent materials, polymerizable compns.,
 optical recording materials, and image forming materials)

L3 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:323314 CAPLUS <>LOGINID::20061218>>
 DN 142:400655
 ED Entered STN: 15 Apr 2005
 TI Method and material for recording volume phase-type hologram
 IN Takizawa, Hiroo
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 50 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G03H001-04
 ICS G03F007-004; G03H001-02; G11B007-0065
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 41

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2005099416 | A | 20050414 | JP 2003-332938 | 20030925 |
| PRAI | JP 2003-332938 | | | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|--|
| JP 2005099416 | ICM | G03H001-04 |
| | ICS | G03F007-004; G03H001-02; G11B007-0065 |
| | IPCI | G03H0001-04 [ICM,7]; G03F0007-004 [ICS,7]; G03H0001-02
[ICS,7]; G11B0007-0065 [ICS,7]; G11B0007-00 [ICS,7,C*] |
| | IPCR | G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03H0001-02
[I,A]; G03H0001-02 [I,C*]; G03H0001-04 [I,A];
G03H0001-04 [I,C*]; G11B0007-00 [I,C*]; G11B0007-0065
[I,A] |
| | FTERM | 2H025/AA00; 2H025/AB14; 2H025/AC08; 2H025/AD01;
2H025/BH05; 2H025/CA00; 2H025/CC15; 2K008/AA04;
2K008/BB05; 2K008/DD13; 2K008/EE07; 2K008/FF17;
2K008/HH01; 2K008/HH06; 2K008/HH13; 2K008/HH18;
5D090/BB16 |

OS MARPAT 142:400655

AB Disclosed is a process for forming a hologram using ***two*** -
 photon absorption. A 2-photon absorption compd. may include a
 (mero)cyanine dye, an ***oxonol*** dye, a phthalocyanine dye, an azo
 dye, and a dye represented by X2(R4C=CR3)mCO(R1C=CR2)nX1 (R1-4 = H,
 substituent; n, m = 0-4; and X1,2 = aryl, heterocyclyl, etc.).

ST recording vol phase hologram holog; merocyanine cyanine ***oxonol***
 phthalocyanin azo dye

IT Azo dyes

Cyanine dyes

Holography

Two - ***photon*** absorption
 (***two*** - ***photon***. absorption material for vol. phase-type
 holog. recording)

IT 78902-42-8 111545-69-8 114750-15-1 217793-15-2 308116-42-9
 500905-67-9 680232-68-2 680232-71-7 680232-73-9 680232-75-1
 680232-77-3 680232-79-5 681836-47-5 718636-63-6 816453-41-5
 835628-33-6 835628-34-7 849792-43-4 849792-45-6
 RL: EPR (Engineering process); NUU (Other use, unclassified); PEP

(Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (***two*** - ***photon*** absorption material for vol. phase-type
 holog. recording)

L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:302558 CAPLUS <<LOGINID::20061218>>
DN 142:382269
ED Entered STN: 08 Apr 2005
TI ***Two*** - ***photon*** absorption optical recording material and
 two - ***photon*** absorption optical recording method
IN Takizawa, Hiroo
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 84 pp.
 CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03C001-72
 ICS G02F001-13; G02F001-35; G02F001-361; G11B007-24
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 41, 73

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------------|------|----------|-----------------|----------|
| PI JP 2005092074 | A | 20050407 | JP 2003-328273 | 20030919 |
| PRAI JP 2003-328273 | | 20030919 | | |

CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|-------|--|
| JP 2005092074 | ICM | G03C001-72 |
| | ICS | G02F001-13; G02F001-35; G02F001-361; G11B007-24 |
| | IPCI | G03C0001-72 [ICM, 7]; G02F0001-13 [ICS, 7]; G02F0001-35
[ICS, 7]; G02F0001-361 [ICS, 7]; G11B0007-24 [ICS, 7] |
| | IPCR | G02F0001-13 [I, A]; G02F0001-13 [I, C*]; G02F0001-35
[I, A]; G02F0001-35 [I, C*]; G02F0001-361 [I, A];
G03C0001-72 [I, A]; G03C0001-72 [I, C*]; G11B0007-24
[I, A]; G11B0007-24 [I, C*] |
| | FTERM | 2H088/EA62; 2H088/GA06; 2H088/GA12; 2H088/GA15;
2H088/JA26; 2H088/MA20; 2H123/AA00; 2H123/AA02;
2H123/AA03; 2H123/AA04; 2H123/AA05; 2H123/AA08;
2H123/AA09; 2H123/AA12; 2H123/AA19; 2H123/AA51;
2H123/AA60; 2H123/AE00; 2H123/AE01; 2K002/AA05;
2K002/AB29; 2K002/BA02; 2K002/CA06; 2K002/CA14;
2K002/HA22; 5D029/JA04 |

OS MARPAT 142:382269
AB Disclosed is a process of altering an orientation of a compd. with a characteristic birefringence using 2-photon absorption and chem. fixing the orientation, thereby recording information as a refractive index modulation in a nonrewritable manner. A 2-photon absorption compd. may be a cyanine dye merocyanine dye, an ***oxonol*** dye, a phthalocyanine dye, or a compd. represented by X2-(R4C=CR3)mCO(R1C=CR2)nX1 (R1-4 = H, substituent; m, n = 0-4; and X1,2 = aryl, heterocyclyl, etc.).
ST ***two*** - ***photon*** absorption optical recording; cyanine
 merocyanine ***oxonol*** dye phthalocyanine
IT Optical recording materials
 (nonrewritable; prepn. of ***two*** - ***photon*** absorption
 compd. for optical recording material)
IT Cyanine dyes
Optical recording
 Two - ***photon*** absorption
 (pregn. of ***two*** - ***photon*** absorption compd. for optical
 recording material)
IT 574-93-6D, Phthalocyanine, deriv.
RL: DEV (Device component use); USES (Uses)
 (pregn. of ***two*** - ***photon*** absorption compd. for optical
 recording material)
IT 681836-47-5P 718636-60-3P
RL: DEV (Device component use); SPN (Synthetic preparation); PREP
 (Preparation); USES (Uses)
 (pregn. of ***two*** - ***photon*** absorption compd. for optical
 recording material)
IT 120-92-3, Cyclopentanone 927-63-9 4637-24-5 88253-66-1 165547-54-6

398522-14-0

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prep. of ***two*** - ***photon*** absorption compd. for optical
 recording material)

IT 88340-89-0P 681836-46-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prep. of ***two*** - ***photon*** absorption compd. for optical
 recording material)

L3 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:1058477 CAPLUS <>LOGINID::20061218>>

DN 142:45976

ED Entered STN: 10 Dec 2004

TI Polymerizable compositions showing nonresonant ***two*** -
 photon absorption and method for three-dimensional refractive
 index modulation of them and optical recording therewith

IN Takizawa, Hiroo

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 63 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F002-44

ICS C08F291-00; C08K005-00; C08L101-00; G02F001-361; G03F007-004;
 G11B007-24; C09B023-00CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

Section cross-reference(s): 38, 41, 73

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | JP 2004346238 | A | 20041209 | JP 2003-146527 | 20030523 |
| | US 2004245432 | A1 | 20041209 | US 2004-849519 | 20040520 |
| PRAI | JP 2003-146527 | A | 20030523 | | |
| | JP 2003-312744 | A | 20030904 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|---------------|------------|--|------------------------------------|
| JP 2004346238 | ICM | C08F002-44 | |
| | ICS | C08F291-00; C08K005-00; C08L101-00; G02F001-361;
G03F007-004; G11B007-24; C09B023-00 | |
| | IPCI | C08F0002-44 [ICM, 7]; C08F0291-00 [ICS, 7]; C08K0005-00
[ICS, 7]; C08L0101-00 [ICS, 7]; G02F0001-361 [ICS, 7];
G02F0001-35 [ICS, 7, C*]; G03F0007-004 [ICS, 7];
G11B0007-24 [ICS, 7]; C09B0023-00 [ICS, 7] | |
| | IPCR | C08F0002-44 [I, A]; C08F0002-44 [I, C*]; C08F0291-00
[I, A]; C08F0291-00 [I, C*]; C08K0005-00 [I, A];
C08K0005-00 [I, C*]; C08L0101-00 [I, A]; C08L0101-00
[I, C*]; C09B0023-00 [N, A]; C09B0023-00 [N, C*];
G02F0001-35 [I, C*]; G02F0001-361 [I, A]; G03F0007-004
[I, A]; G03F0007-004 [I, C*]; G11B0007-24 [I, A];
G11B0007-24 [I, C*] | |
| FTERM | | 2H025/AA01; 2H025/AB14; 2H025/AC08; 2H025/AD01;
2H025/BC13; 2H025/BC51; 2H025/BD03; 2H025/BH05;
2H025/CA00; 2H025/CA41; 2H025/CA48; 2H025/CB04;
2H025/CB07; 2H025/CB41; 2K002/AA01; 2K002/AB40;
2K002/BA01; 2K002/CA06; 2K002/HA16; 4H056/CA01;
4H056/CA02; 4H056/CA05; 4H056/CB01; 4H056/CC02;
4H056/CC04; 4H056/CC08; 4H056/CD05; 4H056/CE02;
4H056/CE03; 4H056/CE06; 4H056/DD03; 4H056/DD06;
4H056/DD16; 4H056/DD19; 4H056/DD23; 4H056/DD29;
4J002/AB021; 4J002/BC021; 4J002/BC111; 4J002/BC121;
4J002/BD121; 4J002/BE021; 4J002/BE061; 4J002/BF021;
4J002/BG021; 4J002/EL126; 4J002/ET006; 4J002/EU026;
4J002/EU116; 4J002/EU126; 4J002/EU136; 4J002/EU226;
4J002/EV306; 4J002/EV326; 4J002/FD096; 4J002/GS02;
4J011/AC04; 4J011/PA53; 4J011/PA66; 4J011/PA67;
4J011/PA68; 4J011/PB40; 4J011/PC02; 4J011/PC08;
4J026/AA02; 4J026/AA26; 4J026/AA30; 4J026/AA34;
4J026/AA38; 4J026/AC36; 4J026/BA05; 4J026/BA08;
4J026/BA27; 4J026/BA28; 4J026/BA29; 4J026/BA30; | |

4J026/BA40; 4J026/DB06; 4J026/DB15; 4J026/DB36;
4J026/FA05; 4J026/GA09; 5D029/JA04; 5D029/JB11;
5D029/JC17

US 2004245432 IPCI H01L0027-00 [ICM, 7]
IPCR H01L0027-00 [I, A]; H01L0027-00 [I, C*]
NCL 250/208.100; 257/E27.133; 430/336.000
ECLA H01L027/146F

OS MARPAT 142:45976

AB The compns. comprise (A) ***two*** - ***photon*** -absorbing compds. (e.g., methine dyes, phthalocyanine dyes, merocyanine dyes, ***oxonol*** dyes), (B) (radical- or acid-generating) polymn. initiators, (C) (radically or cationically polymerizable) monomers, and (D) binders. For modulation of refractive index, the compns. are photopolymd. by ***two*** - ***photon*** absorption induced by laser irradn. at linear absorption-free wavelength which is longer than linear absorption bands of A. After the irradn., compn. ratio of C and C polymers to D in the compns. is unequalized between at focal regions and at the other regions, allowing the refractive index modulation and three-dimensional optical recording.

ST nonresonant ***two*** ***photon*** absorption three dimensional photopolymn; cyanine merocyanine ***oxonol*** dye ***two*** ***photon*** absorption; laser irradn nonlinear refractive index modulation; optical recording refractive index laser photopolymn disproportionation; ***two*** ***photon*** absorption three dimensional optical recording

IT Polysiloxanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(Me Ph, binders; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT Polymerization catalysts

(acid-generating; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT Fluoropolymers, uses

Polyvinyl butyral

RL: TEM (Technical or engineered material use); USES (Uses)
(binders; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT Polyvinyl acetals

RL: TEM (Technical or engineered material use); USES (Uses)
(formals, binders; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT Optical recording

(laser, three-dimensional; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT ***Two*** - ***photon*** absorption
(nonlinear, nonresonant; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT Dyes

(org.; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT Polymerization

(photopolymn.; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT Cyanine dyes

(polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT Polymerization catalysts

(radical; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional refractive index modulation and optical recording)

IT Optical modulation

(refractive index; polymerizable compns. showing nonresonant ***two*** - ***photon*** absorption for three-dimensional

refractive index modulation and optical recording)
IT Nonlinear optical absorption
(***two*** - ***photon*** , nonresonant; polymerizable compns.
showing nonresonant ***two*** - ***photon*** absorption for
three-dimensional refractive index modulation and optical recording)
IT 9002-89-5, Poly(vinyl alcohol) 9003-20-7, Poly(vinyl acetate)
9003-53-6, Polystyrene 9004-36-8, CAB
RL: TEM (Technical or engineered material use); USES (Uses)
(binders; polymerizable compns. showing nonresonant ***two*** -
photon absorption for three-dimensional refractive index
modulation and optical recording)
IT 574-93-6, Phthalocyanine
RL: TEM (Technical or engineered material use); USES (Uses)
(dyes; polymerizable compns. showing nonresonant ***two*** -
photon absorption for three-dimensional refractive index
modulation and optical recording)
IT 54443-93-5P 66142-15-2P 88253-66-1P 88340-89-0P 681836-46-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(in prepn. of ***two*** - ***photon*** -absorbing dyes;
polymerizable compns. showing nonresonant ***two*** - ***photon***
absorption for three-dimensional refractive index modulation and
optical recording)
IT 67-52-7, Barbituric acid 115-80-0, Triethyl orthopropionate 120-92-3,
Cyclopentanone 504-17-6, Thiobarbituric acid 927-63-9 1120-71-4,
Propanesultone 1497-49-0 4485-89-6 4637-24-5 29636-96-2
61931-68-8 165547-54-6 398522-14-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(in prepn. of ***two*** - ***photon*** -absorbing dyes;
polymerizable compns. showing nonresonant ***two*** - ***photon***
absorption for three-dimensional refractive index modulation and
optical recording)
IT 307-98-2 1484-13-5 1675-54-3, Bisphenol a diglycidyl ether 2386-87-0
3530-36-7 3741-77-3 18724-32-8 52684-34-1
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
(Reactant or reagent); USES (Uses)
(monomers; polymerizable compns. showing nonresonant ***two*** -
photon absorption for three-dimensional refractive index
modulation and optical recording)
IT 25085-98-7P 25085-99-8P, Bisphenol a diglycidyl ether homopolymer
26337-50-8P 34558-43-5P 121225-97-6P 805231-70-3P 805231-71-4P
805231-72-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(polymers; polymerizable compns. showing nonresonant ***two*** -
photon absorption for three-dimensional refractive index
modulation and optical recording)
IT 20444-09-1 57840-38-7, Triphenylsulfonium hexafluoroantimonate
58109-40-3, Diphenyliodonium hexafluorophosphate 120307-06-4
125407-19-4 132838-87-0 153148-27-7 442199-78-2
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES
(Uses)
(polymn. initiators; polymerizable compns. showing nonresonant
two - ***photon*** absorption for three-dimensional
refractive index modulation and optical recording)
IT 805231-69-0 805244-72-8
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES
(Uses)
(***two*** - ***photon*** -absorbing dyes, polymn. initiators;
polymerizable compns. showing nonresonant ***two*** - ***photon***
absorption for three-dimensional refractive index modulation and
optical recording)
IT 33628-03-4P 78902-42-8P 681836-47-5P 718636-60-3P 774216-84-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(***two*** - ***photon*** -absorbing dyes; polymerizable compns.
showing nonresonant ***two*** - ***photon*** absorption for
three-dimensional refractive index modulation and optical recording)
IT 52560-25-5 680232-65-9 718636-62-5 718636-63-6
RL: TEM (Technical or engineered material use); USES (Uses)
(***two*** - ***photon*** -absorbing dyes; polymerizable compns.
showing nonresonant ***two*** - ***photon*** absorption for

L3 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2004:305221 CAPLUS <>LOGINID::20061218>>
DN 140:347135
ED Entered STN: 15 Apr 2004
TI Nonresonant ***two*** - ***photon*** -absorbing material, nonresonant
two - ***photon*** -emitting material, and methods for inducing
absorption or generating nonresonant ***two*** - ***photon***
emission by using the material
IN Takizawa, Hiroo; Tani, Takeharu; Morinaga, Naoki
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 46 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM G02F001-361
ICS G03F007-00
CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related
Properties)
Section cross-reference(s): 41, 74

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | EP 1408366 | A2 | 20040414 | EP 2003-22697 | 20031007 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | JP 2004279794 | A | 20041007 | JP 2003-71874 | 20030317 |
| | JP 2004279795 | A | 20041007 | JP 2003-71875 | 20030317 |
| | JP 2004149517 | A | 20040527 | JP 2003-337029 | 20030929 |
| | US 2004086803 | A1 | 20040506 | US 2003-678301 | 20031006 |
| | JP 2005025152 | A | 20050127 | JP 2003-351665 | 20031010 |
| PRAI | JP 2002-293720 | A | 20021007 | | |
| | JP 2003-65580 | A | 20030311 | | |
| | JP 2003-71874 | A | 20030317 | | |
| | JP 2003-71875 | A | 20030317 | | |
| | JP 2003-168028 | A | 20030612 | | |

CLASS

| | PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|----|------------|-------|---|
| EP | 1408366 | ICM | G02F001-361 |
| | | ICS | G03F007-00 |
| | | IPCI | G02F0001-361 [ICM, 7]; G02F0001-35 [ICM, 7, C*];
G03F0007-00 [ICS, 7] |
| | | IPCR | G02F0001-35 [I, C*]; G02F0001-361 [I, A]; G03F0007-00
[I, A]; G03F0007-00 [I, C*]; G03F0007-20 [I, A];
G03F0007-20 [I, C*] |
| | | ECLA | G02F001/361B2; G02F001/361D2; G03F007/00S; G03F007/20S2 |
| JP | 2004279794 | IPCI | G02F0001-361 [ICM, 7]; G02F0001-35 [ICM, 7, C*];
C09K0011-06 [ICS, 7]; C09B0023-00 [ICS, 7] |
| | | IPCR | C09B0023-00 [N, A]; C09B0023-00 [N, C*]; C09K0011-06
[I, A]; C09K0011-06 [I, C*]; G02F0001-35 [I, C*];
G02F0001-361 [I, A] |
| | | FTERM | 2K002/AB12; 2K002/BA01; 2K002/CA05; 2K002/GA07;
2K002/HA13; 4H056/CA01; 4H056/CC02; 4H056/CC04;
4H056/CC08; 4H056/CD04; 4H056/CD08; 4H056/CD09;
4H056/CE01; 4H056/CE03; 4H056/CE06; 4H056/DD06;
4H056/DD07; 4H056/DD12; 4H056/DD16; 4H056/DD19;
4H056/DD23; 4H056/DD28; 4H056/DD29 |
| JP | 2004279795 | IPCI | G02F0001-361 [ICM, 7]; G02F0001-35 [ICM, 7, C*];
C09K0011-06 [ICS, 7]; C09B0023-00 [ICS, 7] |
| | | IPCR | C09B0023-00 [N, A]; C09B0023-00 [N, C*]; C09K0011-06
[I, A]; C09K0011-06 [I, C*]; G02F0001-35 [I, C*];
G02F0001-361 [I, A] |
| | | FTERM | 2K002/AB12; 2K002/BA01; 2K002/CA06; 2K002/HA19;
4H056/CA02; 4H056/CC04; 4H056/CC08; 4H056/CD08;
4H056/CD09; 4H056/CD12; 4H056/CE01; 4H056/CE03;
4H056/CE06; 4H056/DD03; 4H056/DD04; 4H056/DD06;
4H056/DD07; 4H056/DD12; 4H056/DD16; 4H056/DD19;
4H056/DD23; 4H056/DD28; 4H056/DD29; 4H056/FA10 |
| JP | 2004149517 | IPCI | C07C0049-683 [ICM, 7]; C07C0049-00 [ICM, 7, C*];
C07C0255-34 [ICS, 7]; C07C0255-00 [ICS, 7, C*]; |

C07C0309-14 [ICS,7]; C07C0309-00 [ICS,7,C*];
 C07D0263-56 [ICS,7]; C07D0263-00 [ICS,7,C*];
 C07D0277-64 [ICS,7]; C07D0277-00 [ICS,7,C*];
 C07F0001-08 [ICS,7]; C07F0001-00 [ICS,7,C*];
 C07F0003-02 [ICS,7]; C07F0003-06 [ICS,7]; C07F0003-00
 [ICS,7,C*]; C09K0011-06 [ICS,7]; G02F0001-361 [ICS,7];
 G02F0001-35 [ICS,7,C*]
 IPCR C07C0049-00 [I,C*]; C07C0049-683 [I,A]; C07C0255-00
 [I,C*]; C07C0255-34 [I,A]; C07C0309-00 [I,C*];
 C07C0309-14 [I,A]; C07D0263-00 [I,C*]; C07D0263-56
 [I,A]; C07D0277-00 [I,C*]; C07D0277-64 [I,A];
 C07F0001-00 [I,C*]; C07F0001-08 [I,A]; C07F0003-00
 [I,C*]; C07F0003-02 [I,A]; C07F0003-06 [I,A];
 C09K0011-06 [I,A]; C09K0011-06 [I,C*]; G02F0001-35
 [I,C*]; G02F0001-361 [I,A]
 FTERM 2K002/AB12; 2K002/BA01; 2K002/CA05; 2K002/HA13;
 4C056/AA01; 4C056/AB01; 4C056/AC02; 4C056/AD03;
 4C056/AE03; 4H006/AA01; 4H006/AA03; 4H006/AB92;
 4H006/BJ50; 4H006/BN20; 4H006/BR70; 4H006/BU42;
 4H006/BU46; 4H006/BU50; 4H006/NB00; 4H048/AA01;
 4H048/AA03; 4H048/AB92; 4H048/VA32; 4H048/VA56;
 4H048/VA60; 4H048/VA66; 4H048/VB10
 US 2004086803 IPCI G11B0007-24 [ICM,7]
 IPCR G02F0001-35 [I,C*]; G02F0001-361 [I,A]; G03F0007-00
 [I,A]; G03F0007-00 [I,C*]; G03F0007-20 [I,A];
 G03F0007-20 [I,C*]
 NCL 430/270.180; 428/064.800; 430/270.200; 430/945.000
 ECLA G02F001/361B2; G02F001/361D2; G03F007/00S; G03F007/20S2
 JP 2005025152 IPCI G02F0001-361 [ICM,7]; G02F0001-35 [ICM,7,C*];
 C09B0023-00 [ICS,7]; C09K0011-06 [ICS,7]
 IPCR C09B0023-00 [I,A]; C09B0023-00 [I,C*]; C09K0011-06
 [I,A]; C09K0011-06 [I,C*]; G02F0001-35 [I,C*];
 G02F0001-361 [I,A]
 FTERM 2K002/AA07; 2K002/AB29; 2K002/BA01; 2K002/CA06;
 2K002/GA07; 2K002/HA22; 4H056/CA01; 4H056/CA05;
 4H056/CC02; 4H056/CC08; 4H056/CE03; 4H056/CE06;
 4H056/DD03; 4H056/DD04; 4H056/DD06; 4H056/DD07;
 4H056/DD15; 4H056/DD19
 OS MARPAT 140:347135
 AB Nonresonant ***two*** - ***photon*** -absorbing materials are
 described which comprise a methine dye or a dye in an intramol.
 aggregation state. The methine dye is preferably a cyanine dye, a
 merocyanine dye, or an ***oxonol*** dye. ***Two*** - ***photon***
 -emitting materials are also described which the ***two*** -
 photon -absorbing materials. Methods for inducing ***two*** -
 photon absorption and/or emission entailing irradiating the
 materials with laser radiation are also described. Optical recording
 media, three-dimensional vol. displays, and three-dimensional
 stereolithog. are also described which employ the materials.
 ST nonresonant ***two*** ***photon*** absorbing emitting material;
 optical recording medium nonresonant ***two*** ***photon***
 absorbing emitting material; ***three*** dimensional display
 two ***photon*** absorbing emitting material; stereolithog
 two ***photon*** absorbing emitting material
 IT Cyanine dyes
 Dyes
 Luminescent substances
 Nonlinear optical materials
 Two - ***photon*** absorption
 (nonresonant ***two*** - ***photon*** -absorbing and -emitting
 materials and methods for inducing absorption or generating nonresonant
 two - ***photon*** emission using them and their use)
 IT Optical recording materials
 Stereolithography
 (nonresonant ***two*** - ***photon*** -absorbing and -emitting
 materials and methods for inducing absorption or generating nonresonant
 two - ***photon*** emission using them and their use in)
 IT Optical imaging devices
 (***three*** -dimensional; nonresonant ***two*** - ***photon***
 -absorbing and -emitting materials and methods for inducing absorption
 or generating nonresonant ***two*** - ***photon*** emission using
 them and their use in)

IT 67-52-7, Barbituric acid 115-80-0, Triethyl orthopropionate 273-53-0,
 Benzoxazole 504-17-6, Thiobarbituric acid 1120-71-4, Propane sultone
 4485-89-6 5608-83-3 29636-96-2 680232-64-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (nonresonant ***two*** - ***photon*** -absorbing and -emitting
 materials and methods for inducing absorption or generating nonresonant
 two - ***photon*** emission using them and their use)

IT 54443-93-5P 66142-15-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (nonresonant ***two*** - ***photon*** -absorbing and -emitting
 materials and methods for inducing absorption or generating nonresonant
 two - ***photon*** emission using them and their use)

IT 33628-03-4P 78902-42-8P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (nonresonant ***two*** - ***photon*** -absorbing and -emitting
 materials and methods for inducing absorption or generating nonresonant
 two - ***photon*** emission using them and their use)

IT 14846-12-9 32976-69-5 40387-89-1 55935-20-1 65294-02-2
 72076-49-4 102731-88-4 111545-69-8 115310-99-1 183272-14-2
 308116-42-9 308116-44-1 337963-09-4 455329-63-2 680232-65-9
 680232-66-0 680232-68-2 680232-69-3 680232-71-7 680232-73-9
 680232-75-1 680232-77-3 680232-78-4 680232-79-5 680232-80-8
 680232-81-9 680232-83-1 680232-84-2 680232-85-3 680232-87-5
 680232-89-7 680232-90-0 680232-91-1 680232-92-2 680232-94-4
 680232-95-5 680232-96-6 680233-01-6 680233-02-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (nonresonant ***two*** - ***photon*** -absorbing and -emitting
 materials and methods for inducing absorption or generating nonresonant
 two - ***photon*** emission using them and their use)

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(FILE 'HOME' ENTERED AT 16:40:40 ON 18 DEC 2006)

FILE 'CAPLUS, INSPEC' ENTERED AT 16:40:56 ON 18 DEC 2006

L1 985 S OXONOL
 L2 76352 S ((TWO OR MULTI OR THREE OR BI) (4W) PHOTON?) OR BIPHOTON? OR MU
 L3 6 S L1 AND L2

=> log y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|--|------------------|---------------|
| FULL ESTIMATED COST | 35.68 | 35.89 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
| CA SUBSCRIBER PRICE | -4.50 | -4.50 |

STN INTERNATIONAL LOGOFF AT 16:42:23 ON 18 DEC 2006